



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,566	04/19/2004	Virinder Mohan Batra	CHA920040004US1	3188
23550	7590	10/20/2006	EXAMINER	
HOFFMAN WARNICK & D'ALESSANDRO, LLC			GORTAYO, DANGELINO N	
75 STATE STREET			ART UNIT	
14TH FLOOR			PAPER NUMBER	
ALBANY, NY 12207			2168	

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/827,566	<b>Applicant(s)</b> BATRA ET AL.	
	<b>Examiner</b> Dangelino N. Gortayo	<b>Art Unit</b> 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/19/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-20 are pending.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 4/19/2004 is in compliance with the provisions of 37 CFR 1.97 and has been considered by the examiner.

#### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. For an invention to be statutory, an invention must disclose a "useful, tangible, and concrete result". The claimed invention as a whole must be useful and accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966)); In re Fisher, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); In re Ziegler, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

Independent claim 1 recites the limitation "a selecting system for forming the chain of Web services by selecting a Web service for each of a plurality of tasks in the workflow". The claim fails to produce a useful, concrete, or tangible result. Rather, the system rearranges services to execute a workflow, without providing a tangible result to the user of the invention. There is no following step that shows a result of the workflow execution. Therefore the claim is rendered non-statutory. Proper correction is required.

Independent claim 8 recites the limitation "means for forming a chain of Web services by selecting a Web service for each of a plurality of tasks in the workflow". The claim fails to produce a useful, concrete, or tangible result. Rather, the system rearranges services to execute a workflow, without providing a tangible result to the user of the invention. There is no following step that shows a result of the workflow execution. Therefore the claim is rendered non-statutory. Proper correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Gardner (US Publication 2003/0177143 A1)

**As per claim 1, Gardner** teaches “A system for dynamically implementing a chain of Web services from a client on the World Wide Web to execute a workflow,” (see Abstract)

“comprising: a database for storing a list of available Web services, wherein each listed Web service includes a description of a task performed by the Web service, and an input and output signature of the Web service,” (Figure 2 reference 210 and block 0049, wherein a data warehouse stores bioinformatics data to process data, and a data parser transforms content of disparate data for identification and use)

“and a selecting system for forming the chain of Web services by selecting a Web service for each of a plurality of tasks in the workflow,” (Figure 12, blocks 0051, 0052, and 0098, wherein workflow and automation tools organize a drug discovery process using various modules and tools) “wherein the selecting system matches input and output signatures to ensure that each selected Web service is compatible with adjacent Web services in the chain of Web services.” (block 0049, wherein a data parser may be used for each type of database to process data)

**As per claim 2, Gardner** teaches “the workflow comprises a microarray analysis workflow.” (block 0046, wherein the system analyzes and clusters bioinformatics data)

**As per claim 3, Gardner** teaches “a workflow generator for creating the workflow.” (Figure 2 reference 250, block 0098, wherein workflow tools organizes the tasks into a workflow to process data)

**As per claim 4, Gardner** teaches “the list of available Web services resides locally with the client.” (block 077, 0096, wherein the user is presented with icons showing different tasks present in other data sources)

**As per claim 5, Gardner** teaches “a system for collecting and storing available Web services data.” (Figure 11, block 0094, 0095)

**As per claim 6, Gardner** teaches “a system for inputting sequence data into the workflow execution.” (Figure 11, block 0051, 0100, wherein target identification and target validation module inputs data)

**As per claim 7, Gardner** teaches “the workflow includes a specified input and output format.” (block 0049, block 0086, 0087, wherein a user specifies the input and output format)

**As per claim 8, Gardner** teaches “A program product, stored on a recordable medium for executing a workflow by dynamically implementing Web services from a client on the World Wide Web,” (see Abstract)

“comprising: means for storing a list of available Web services, wherein each listed Web service includes a description of a task performed by the Web service, and an input and output signature of the Web service;” (Figure 2 reference 210 and block 0049, wherein a data warehouse stores bioinformatics data to process data, and a data parser transforms content of disparate data for identification and use)

“and means for forming a chain of Web services by selecting a Web service for each of a plurality of tasks in the workflow,” (Figure 12, blocks 0051, 0052, and 0098,

Art Unit: 2168

wherein workflow and automation tools organize a drug discovery process using various modules and tools) “wherein the forming means matches input and output signatures to ensure that each selected Web service is compatible with adjacent Web services in the chain of Web services.” (block 0049, wherein a data parser may be used for each type of database to process data)

**As per claim 9, Gardner teaches** “the workflow comprises a microarray analysis workflow.” (block 0046, wherein the system analyzes and clusters bioinformatics data)

**As per claim 10, Gardner teaches** “the workflow comprises a bioinformatics workflow.” (block 0046, 004, “bioinformatics system”)

**As per claim 11, Gardner teaches** “means for creating the workflow.” (Figure 2 reference 250, block 0098, wherein workflow tools organizes the tasks into a workflow to process data)

**As per claim 12, Gardner teaches** “the storage means resides locally with the client.” (block 077, 0096, wherein the user is presented with icons showing different tasks present in other data sources)

**As per claim 13, Gardner teaches** “means for collecting and storing available Web services data in said storage means.” (Figure 11, block 0094, 0095)

**As per claim 14, Gardner teaches** “a system for inputting sequence data into the workflow execution.” (Figure 11, block 0051, 0100, wherein target identification and target validation module inputs data)

**As per claim 15, Gardner** teaches “the workflow includes a specified input and output format.” (block 0049, block 0086, 0087, wherein a user specifies the input and output format)

**As per claim 16, Gardner** teaches “A method for executing a bioinformatics workflow from a client on the World Wide Web,” (see Abstract)

“comprising: providing a workflow having a plurality of tasks;” (Figure 12, block 0049, 0052, 0098, wherein a workflow with a variety of tasks is made by workflow and automation tools)

“providing a list of known bioinformatics Web services, wherein each listed Web service includes a description of a task performed by the Web service, and an input and output signature of the Web service;” (Figure 2 reference 210 and block 0049, wherein a data warehouse stores bioinformatics data to process data, and a data parser transforms content of disparate data for identification and use)

“selecting a Web service from the list of known bioinformatics Web services for each task in the bioinformatics workflow to form a chain of Web services, wherein the selecting step matches input and output signatures to ensure that each selected Web service is compatible with adjacent Web services in the chain of Web services;” (Figure 12, blocks 0051, 0052, and 0098, wherein workflow and automation tools organize a drug discovery process using various modules and tools)

“and calling each selected Web service in the chain to execute the bioinformatics workflow.” (block 0098, wherein the processes of the workflow are executed)



**As per claim 17, Gardner** teaches "the bioinformatics workflow comprises a microarray analysis." (block 0046, wherein the system analyzes and clusters bioinformatics data)

**As per claim 18, Gardner** teaches "the list of known bioinformatics Web services resides locally to the client." (block 077, 0096, wherein the user is presented with icons showing different tasks present in other data sources)

**As per claim 19, Gardner** teaches "the workflow includes a specified input and output format." (block 0049, block 0086, 0087, wherein a user specifies the input and output format)

**As per claim 20, Gardner** teaches "the step of calling each selected Web service includes the step of providing a set bioinformatics data to a first Web service in the chain in the specified input format." (blocks 0078, 0079, 0080, 0081)

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Seilhamer et al. (US Patent 6,023,659)

Glynias et al. (US Patent 6,453,333 B1)

Jevons et al. (US Patent 6,804,679 B2)

Milosavljevic et al. (US Publication 2004/0098204 A1)

Art Unit: 2168

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dangelino N. Gortayo whose telephone number is (571)272-7204. The examiner can normally be reached on M-F 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dangelino N. Gortayo  
Examiner

Tim T. Vo  
SPE

DL



**TIM VO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**